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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,403	10/01/2003	Sandeep Gulati	VIALO-27	8885
26686	7590	06/02/2004	EXAMINER	
CARL A. KUKKONEN, III C/O WUESTHOFF & WUESTHOFF SCHWEIGERSTRASSE 2 MUNICH, 81541 GERMANY			KIM, YOUNG J	
			ART UNIT	PAPER NUMBER
			1637	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/677,403

Applicant(s)

GULATI, SANDEEP

Examiner

Young J. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 13-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-5 and the newly added claims drawn to the elected subject matter of Group I in the Election received on April 14, 2004 is acknowledged.

Claims 1-5 and 13-20 are pending and are under prosecution therefore.

Priority

Applicants are requested to update the status of the parent applications, serial number 10/189,885, which has now become a U.S. Patent, and serial number 09/523,539, which has now become abandoned. MPEP 201.11(B) describes that the status of all prior-filed non-provisional applications must be updated in the first line of the specification.

Information Disclosure Statement

No IDS was filed for the instant application.

Drawings

The drawings filed on October 1, 2003 are acceptable.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 13 (and its dependent claims 14-20) are indefinite for the recitation of the phrase, “the arrayed information structure emits data,” because it is unclear how a structure can emit, or “*throw or give off or out (as light), eject, publish*” a data (the *italicized* definitions from on-line Merriam-Webster’s Dictionary, attached hereto).

Claims 1 and 13 (and its dependent claims 14-20) are indefinite for the recitation of the phrase, “preconditioning unit for pre-conditioning the digitized output pattern,” because the unit is described by a circular definition. In other words, a preconditioning unit for pre-conditioning process does not define a clear metes and bounds in determining what process is actually involved in such process.

Claim 14 and its dependent claims 15-19 are indefinite because there appears to be missing a conjunction after the step of “mapping the output patterns to the diffusion curve” resulting in the confusion whether more method steps are included or not.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 5 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claim 5 is drawn to a computer program code and not comprised on a computer readable media. Such descriptive material, if not comprised on a computer readable media, is considered to be non-statutory (see MPEP 2106). Amending the claim so that the program product is comprised on a computer readable media, would overcome this rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 and 13-20 are rejected under 35 U.S.C. 102(a) and 102(e) as being anticipated by Garini et al. (U.S. Patent No. 5,871,462, issued October 6, 1998, filed April 22, 1996).

Garini et al. disclose a system for analyzing a biological array which has a collecting optics and scanner units (or preconditioning unit), an interferometer, and a detector, and a signal processing unit (Figures 2 and 3; column 14, lines 15-21, lines 46-65), thereby anticipating instant claim 1.

The term tessellation recited in claims 2-5 and 20 are not defined anywhere in the instant specification. Therefore, the term has been given the meaning as defined in Merriam-Webster on-line dictionary (attached hereto), wherein the definition is given as, “to form into or adorn

with mosaic,” wherein the term, mosaic is further defined as, “a composite map made of photographs.” Since the array image generated by Garini et al. is a composite image of the entire array produced by a scanner, such system would anticipate this limitation.

With regard to the unit *for* mapping the signals correlating to a specific constituents on a diffusion curve, an intended use (as indicated by the use of “for”) has no patentable weight in claim interpretation, and further, the term, “diffusion curve,” (not a viral diffusion curve) is broadly defined as being, “generated from at least two measurements from a patient sample.” (abstract). Since the results of the hybridization of fluorescent probes employed in the system of Garini et al. generates measurements from comparative samples (Figure 6C; column 42, lines 59-67), thereby anticipating instant claims 2-4. The system employs an algorithm to achieve the above means, anticipating instant claim 5.

Garini et al. employ the system to compare the results of hybridization of probes, involving the steps of preconditioning, generating an interference, and analyzing the image (as already discussed above), thereby anticipating instant claims 13-17, 19, and 20.

Garini et al. disclose that the sample could be amplified (*i.e.*, PCR) (column 31, lines 40-50; column 36, lines 46-67), thereby anticipating instant claim 18.

Therefore, Garini et al. anticipate the invention as claimed.

Conclusion

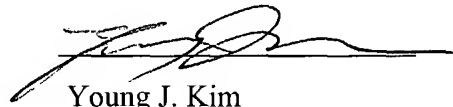
No claims are allowed.

Inquiries

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Young J. Kim whose telephone number is (571) 272-0785. The

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Examiner can normally be reached from 8:30 a.m. to 6:00 p.m. Monday through Thursday. If attempts to reach the Examiner by telephone are unsuccessful, the Primary Examiner in charge of the prosecution, Dr. Kenneth Horlick, can be reached at (571) 272-0784. If the attempts to reach the above Examiners are unsuccessful, the Examiner's supervisor, Gary Benzion, can be reached at (571) 272-0782. Papers related to this application may be submitted to Art Unit 1637 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If applicant does submit a paper by FAX, the original copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office. All official documents must be sent to the Official Tech Center Fax number: (703) 872-9306. For Unofficial documents, faxes can be sent directly to the Examiner at (517) 273-0785. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-0507.



Young J. Kim
Patent Examiner
Art Unit 1637
5/28/04

yjk